PATENT ABSTRACTS OF JAPAN

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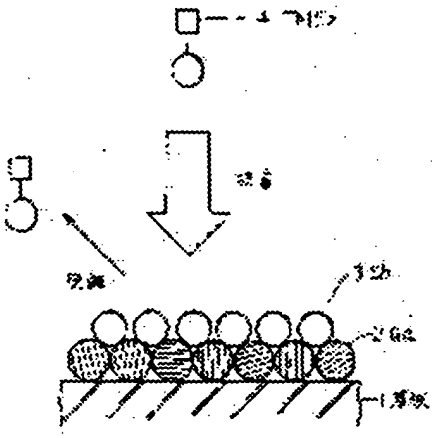
(54) METHOD OF GROWING COMPOUND SEMICONDUCTOR CRYSTAL

(57)Abstract:
PURPOSE: To enable epitaxial growth of an atomic layer of a compound semiconductor containing antimony by alternately supplying trimethyl antimony (TMSb) and a raw material containing elements except antimony for constituting the compound semiconductor crystal into a growth chamber.
CONSTITUTION: When a compound semiconductor crystal containing Sb is to be growth, trimethyl antimony (TMSb) 4 which is an organic metal compound high in vapor pressure and has selective adsorption (or selective desorption) property is used as a raw material of Sb. That is, by alternately supplying TMSb 4 and a raw material containing elements except antimony for constituting the compound semiconductor crystal into a growth chamber, the compound semiconductor crystal containing antimony is growth on a substrate 1. In addition, pressure in a tube at the time of supplying TMSb 4 is 10Torr or higher as well as substrate heating temperature is 450 to 550° C. Thus epitaxial growth of an atomic layer of a compound semiconductor containing Sb is possible.



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